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Phillipe Noelle

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EXAMINER

BAYOU, AMENE SETEGNE

ART UNIT

PAPER NUMBER

3746

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,509	Applicant(s) NOELLE, PHILLIPE	
	Examiner AMENE S. BAYOU	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/07/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4,10-12,14,23-26,30-34,36,45 and 46 are rejected under 35 U.S.C 103(a) as being unpatentable over Allen et al (US patent 6449950) in view of Finger et al (US patent number 6571558) or Hartel et al (US patent 6945757).

3. In re claim 1,10,23 , 32 and 45 Allen et al disclose an electrically assisted supercharger including:

- **Electric motor (having stator 82 and rotor 84) ,in figure 1**,configured for accommodation by a turbocharger **center housing (20)** and configured to drive a **compressor wheel** accommodated in a **compressor housing (16)** via a **shaft (48)** supported by a bearing in the turbocharger center housing, the electric motor being supplied with electric power through at least one motor plug connector (not labeled but inherent). Allen et al ,however fail to disclose the following limitation which is taught by Finger et al or Hartel et al.

Finger et al teach a similar turbocharger including:

- Motor plug connector disposed on an axial side of the electric motor facing the compressor housing (not labeled but shown in figure 1).

Alternatively Hartel et al teach a motor driving a pump including:

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- Motor plug connector (4.1, 4.2), is disposed on an axial side of the electric motor (1), facing the pump housing (2), in figure 2.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the pump of Allen et al by relocating the location of the motor plug connector at the axial side facing the compressor housing as taught by Finger et al or Hartel et al for ease of plugging to the power cable.

4. In re claim 2, Allen et al in view of Finger et al or Hartel et al disclose the claimed invention:

Hartel et al disclose:

- Motor plug connector (4.1, 4.2), is formed as a male plug connector, in figure 1 and 2 and column 4, lines 15-17. Please note that the use of plug connectors as either a male or female type is a very known method of electrical connection used in the art.

5. In re claim 3, Allen et al in view of Finger et al or Hartel et al as applied to claim 1 disclose the claimed invention except mentioning that the motor plug connector is formed as a female plug connector. But this modification would have been obvious to one skilled in the art at the time the invention was made since this merely involves the reversal of parts and it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Also please note that it is notoriously known in the art to use male-female connectors interchangeably based on the structural configuration.

6. In re claim 4, Allen et al in view of Finger et al or Hartel et al as applied to claim 1 disclose the claimed invention except mentioning that there are plurality of housing

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plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

7. In re claim 10 Allen et al in view of Finger et al or Hartel et al disclose the claimed invention:

Allen et al disclose:

- **Compressor housing (16)** ,in figure 1, for accommodating a compressor wheel drivable by an **Electric motor (having stator 82 and rotor 84)** via a shaft connected to the compressor wheel, at least one main power plug connector connectable to an electric power source (inherently) ; and at least one housing plug connector electrically connected to a respective one of the at least one main power plug connector for supplying electric motor with electric power (inherently).

Finger et al teach :

- Motor plug connector disposed on an axial side of the compressor housing facing the electric motor (not labeled but shown in figure 1).

Alternatively Hartel et al teach :

- Motor plug connector (4.1, 4.2), is disposed on an axial side of the pump housing (2),facing the electric motor (1),in figure 2.

8. In re claim 11, Allen et al in view of Finger et al or Hartel et al as applied to claim

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10 disclose the claimed invention except mentioning that the housing plug connector is formed as a female plug connector. But this modification would have been obvious to one skilled in the art at the time the invention was made since this merely involves the reversal of parts and it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Also please note that it is notoriously known in the art to use male-female connectors interchangeably based on the structural configuration.

9. In re claim 12, Allen et al in view of Finger et al or Hartel et al as applied to claim 10 disclose the claimed invention:

Hartel et al disclose:

- Housing plug connector (4.1, 4.2), is formed as a male plug connector, in figure 1 and 2 and column 4, lines 15-17. Please note that the use of plug connectors as either a male or female type is a very known method of electrical connection used in the art.

10. In re claim 14, Allen et al in view of Finger et al or Hartel et al as applied to claim 10 disclose the claimed invention except mentioning that there are plurality of housing plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

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11. In re claim 23, Allen et al in view of Finger et al or Hartel et al disclose the claimed invention:

Allen et al disclose:

- **Turbocharger**, in **figure 1**, comprising an **Electric motor (having stator 82 and rotor 84)**, for driving a compressor wheel accommodated in a **compressor housing (16)**, electric motor being supplied with electric power through at least one motor plug connector (inherently), further comprising a **turbine housing (12)** for accommodating a **turbine wheel (32)** driven by exhaust gas; a **center housing (20)** for accommodating a **shaft (48)** and the electric motor, and extending from the **turbine wheel (32)** through a journal bearing and the electric motor to the compressor wheel; wherein the compressor wheel is driven by the turbine wheel via the shaft and can additionally be driven by the electric motor,

Finger et al teach :

- Motor plug connector disposed on an axial side of the compressor housing facing the electric motor (not labeled but shown in figure 1).

Alternatively Hartel et al teach :

- Motor plug connector (4.1, 4.2), is disposed on an axial side of the pump housing (2), facing the electric motor (1), in figure 2.

12. In re claim 24, Allen et al in view of Finger et al or Hartel et al as applied to claim 23 disclose the claimed invention:

Hartel et al disclose:

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- Motor plug connector (4.1, 4.2), is formed as a male plug connector, in figure 1 and 2 and column 4, lines 15-17. Please note that the use of plug connectors as either a male or female type is a very known method of electrical connection used in the art.

13. In re claim 25, Allen et al in view of Finger et al or Hartel et al as applied to claim 23 disclose the claimed invention except mentioning that the motor plug connector is formed as a female plug connector. But this modification would have been obvious to one skilled in the art at the time the invention was made since this merely involves the reversal of parts and it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Also please note that it is notoriously known in the art to use male-female connectors interchangeably based on the structural configuration.

14. In re claim 26, Allen et al in view of Finger et al or Hartel et al as applied to claim 23 disclose the claimed invention except mentioning that there are plurality of housing plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

15. In re claim 30, Allen et al in view of Finger et al or Hartel et al as applied to claim 26 disclose the claimed invention except mentioning that there are six plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired (such as phase or other factors) since this is a mere duplication and it has been held that mere duplication of the essential

working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

16. In re claim 31 Allen et al in view of Finger et al or Hartel et al as applied to claim 23 disclose the claimed invention:

Hartel et al. disclose:

- Electric motor accommodated in an electric motor cartridge (1) ,wherein at least one motor plug connector (6.2) penetrates the electric motor cartridge (1),in figure 1.

17. In re claim 32, Allen et al in view of Finger et al or Hartel et al disclose the claimed invention:

Allen et al disclose:

- **Turbocharger ,in figure 1**,comprising a compressor housing **compressor housing (16)** for accommodating a compressor wheel drivable by an **Electric motor (having stator 82 and rotor 84)**, further comprising a **turbine housing (12)** for accommodating a **turbine wheel (32)** driven by exhaust gas; a **center housing (20)** for accommodating a **shaft (48)** and the electric motor, and extending from the **turbine wheel (32)** through a journal bearing and the electric motor to the compressor wheel; wherein the compressor wheel is driven by the turbine wheel via the shaft and can additionally be driven by the electric motor, the compressor housing further comprises at least one main power plug connector connectable to an electric power source (inherently),

Finger et al teach :

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- housing plug connector electrically connected to a respective one of the at least one main power plug connector for supplying the electric motor with electric power ,wherein the housing plug connector is disposed on an axial side of the compressor housing facing the electric motor (not labeled but shown in figure 1).

Alternatively Hartel et al teach :

- housing plug connector electrically connected to a respective one of the at least one main power plug connector for supplying the electric motor with electric power ,wherein the housing r plug connector (4.1, 4.2), is disposed on an axial side of the pump housing (2),facing the electric motor (1),in figure 2.

18. In re claim 33, Allen et al in view of Finger et al or Hartel et al as applied to claim 32 disclose the claimed invention except mentioning that the motor plug connector is formed as a female plug connector. But this modification would have been obvious to one skilled in the art at the time the invention was made since this merely involves the reversal of parts and it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Also please note that it is notoriously known in the art to use male-female connectors interchangeably based on the structural configuration.

19. In re claim 34, Allen et al in view of Finger et al or Hartel et al as applied to claim 32 disclose the claimed invention:

Hartel et al disclose:

- Housing plug connector (4.1, 4.2), is formed as a male plug connector, in figure 1 and 2 and column 4, lines 15-17. Please note that the use of plug connectors

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as either a male or female type is a very known method of electrical connection used in the art.

20. In re claim 36, Allen et al in view of Finger et al or Hartel et al as applied to claim 23 disclose the claimed invention except mentioning that there are plurality of housing plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

21. In re claim 45, Allen et al in view of Finger et al or Hartel et al disclose the claimed invention:

Allen et al disclose:

- **Turbocharger**, in **figure 1**, comprising a compressor housing **compressor housing (16)** for accommodating a compressor wheel drivable by an **Electric motor (having stator 82 and rotor 84)**, the electric motor being supplied with electric power through at least one motor plug connector (inherently), further comprising a **turbine housing (12)** for accommodating a **turbine wheel (32)** driven by exhaust gas; a **center housing (20)** for accommodating a **shaft (48)** and the electric motor, and extending from the **turbine wheel (32)** through a journal bearing and the electric motor to the compressor wheel; wherein the compressor wheel is driven by the turbine wheel via the shaft and can additionally be driven by the electric motor, the compressor housing further

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comprises at least one main power plug connector connectable to an electric power source (inherently),

Finger et al teach :

- Motor plug connector disposed on an axial side of the compressor housing facing the electric motor (not labeled but shown in figure 1).

Alternatively Hartel et al teach:

- Compressor housing (2), in figure 1 and 2 further comprises at least one main power plug connector (5) connectable to an electric power source (via 4.1, 4.2) ; and at least one housing plug connector (6.2) electrically connected to a respective one of the at least one main power plug connector (5) for supplying electric motor (1) with electric power, wherein housing plug connector (6.2) is disposed on an axial side of compressor housing (2), facing electric motor (1). Please note that compressor housing and pump housing are synonymous and also refer to the reasoning given in claim 1 about the intended use. Motor plug connector (4.1, 4.2), is disposed on an axial side of the electric motor (1), in figure 1 and 2. See claim 1 and 10 for obviousness.

22. In re claim 46, Allen et al in view of Finger et al or Hartel et al as applied to claim 1 disclose the claimed invention

Allen et al disclose:

- **Turbocharger** , in **figure 1**, comprising a **compressor housing (16)** , a **center housing (20)** and an **Electric motor (having stator 82 and rotor 84)**, further comprising a **turbine housing (12)** for accommodating a **turbine wheel (32)**

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driven by exhaust gas; a **center housing (20)** for accommodating the **shaft (48)** and the electric motor, the shaft serving as a rotor of the electric motor and extending from the **turbine wheel (32)** through the bearing and the electric motor to the compressor wheel; wherein the compressor wheel is driven by the turbine wheel via the shaft and can additionally be driven by the electric motor,

23. Claims 5-9 and 27-29 are rejected under 35 U.S.C 103(a) as being unpatentable over Allen et al in view of Finger et al or Hartel et al as applied to claim 1 further in view of Nestor (US patent number 5147229).

24. In re claim 5 and 27 Allen et al in view of Finger et al or Hartel et al disclose the claimed invention except the following limitation which is taught by Nestor :

- Plug connectors (28) are blade-shaped and extend in an axial direction, in figure 2-4.

It would have been obvious to one skilled in the art at the time the invention was made to modify the plug connectors of Allen et al and Finger et al or Hartel et al by making them blade shaped as taught by Nestor for easy and safe way of coupling.

25. In re claim 6 and 28 Allen et al in view of Finger et al or Hartel et al and Nestor as applied to claim 5 disclose the claimed invention:

Nestor discloses:

- Plug connectors (28) are slanted with respect to the radial direction, in figures 2-4.

26. In re claim 7 and 29 Allen et al in view of Finger et al or Hartel et al and Nestor as applied to claim 5 disclose the claimed invention:

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Hartel et al disclose:

- Housing plug connectors (4.1, 4.2) are perpendicular to the radial direction of the compressor housing (2), in figure 1.

27. In re claim 8, Allen et al in view of Finger et al or Hartel et al and Nestor disclose the claimed invention except mentioning that there are six plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired (such as phase or other factors) since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

28. In re claim 9 Allen et al in view of Finger et al or Hartel et al and Nestor as applied to claim 5 disclose the claimed invention:

Hartel et al. disclose:

- Electric motor accommodated in an electric motor cartridge (1) ,wherein at least one motor plug connector (6.2) penetrates the electric motor cartridge (1),in figure 1.

29. Claims 13,15-26,30,31,35,37-44 are rejected under 35 U.S.C 103(a) as being unpatentable over Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al. (US patent number 5904471).

30. In re claim 13 and 35, Allen et al in view of Finger et al or Hartel et al disclose the claimed invention except the following limitation which is taught by Woollenweber et al:

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- At least one main power plug connector (38) is connected to at least one housing plug connector via a printed circuit board (34), in figure 3.

31. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the pump of Allen et al and Finger et al or Hartel et al by including a printed circuit board as taught by Woollenweber et al in order to have control electronics feature of the compressor operation.

32. In re claim 15 and 37 Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al disclose the claimed invention except mentioning that there are plurality of main power plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

33. In re claim 16 and 38 Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al disclose the claimed invention:

Hartel et al disclose:

- The housing plug connectors (4.1, 4.2) are slot-shaped and extend in an axial direction of the compressor housing, in figures 1-3.

34. In re claim 17 and 39, Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al disclose the claimed invention:

Woollenweber et al disclose:

- Housing plug connectors (54) are slanted with respect to the radial direction of the compressor housing (28), in figure 1.

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35. In re claim 18 and 40, Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al disclose the claimed invention:

Hartel et al disclose:

- Housing plug connectors (4.1, 4.2) are perpendicular to the radial direction of the compressor housing (2), in figure 1.

36. In re claim 19 and 41 Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al disclose the claimed invention except mentioning that there are six housing plug connectors. It would have been obvious to one skilled in the art at the time the invention was made to make plural connections as desired (such as phase or other factors) since this is a mere duplication and it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

37. In re claim 20,21,42,43, Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al inherently disclose the claimed invention since there should be at least one track in order to connect the control electronics to the power supply. Making the numbers of the tracks to 3 would simply a mere duplication that can be done as design choice.

38. In re claim 22 and 44, Allen et al in view of Finger et al or Hartel et al further in view of Woollenweber et al disclose the claimed invention except mentioning that the circuit board is circular and it is located between compressor volute and compressor wheel. But this would have been obvious to one skilled in the art at the time the invention was made since to change the shape of the circuit board as desired based

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on design choice absent persuasive evidence that the particular configuration of the claimed container was significant, *In re Dailey*, 357 F.2d 669, 149 USPQ 47 CCPA 1966. In regard to the location of the circuit board this is also a design choice since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Response to Arguments

39. Applicant's arguments with respect to claims 1 and 10 have been considered but are not persuasive.

40. Applicant amended both claims 1 and 10 and argue that (see page 2 paragraphs 4 and 5) Hartel et al's motor is intended to drive a pump to be used in hydraulic braking system. Although examiner included additional reference necessitated by the amendment of the independent claims examiner however still believes that Hatel's motor **can be used** to drive a compressor if one wishes because such use is based on intended use. Please refer to Hartel column 3, lines 32-34 where it is stated that the use of the motor in the motor vehicle anti brake system is "as an example". Applicant in the same paragraphs further argued that the Hartel reference cites EP 1038745 and such drive motor has an eccentric shaft portion. Again examiner respectfully disagrees since Hartel in column 3, lines 45-49 mentions that the shaft connection can be made in a **manner known** and **only as an example** state that such connection can be made using the cited reference.

Conclusion

41. Applicant's amendment and the fact that applicant's argument is not persuasive necessitated that, **THIS ACTION BE MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amene S. Bayou whose telephone number is 571-270-3214. The examiner can normally be reached on Monday-Thursday, 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746